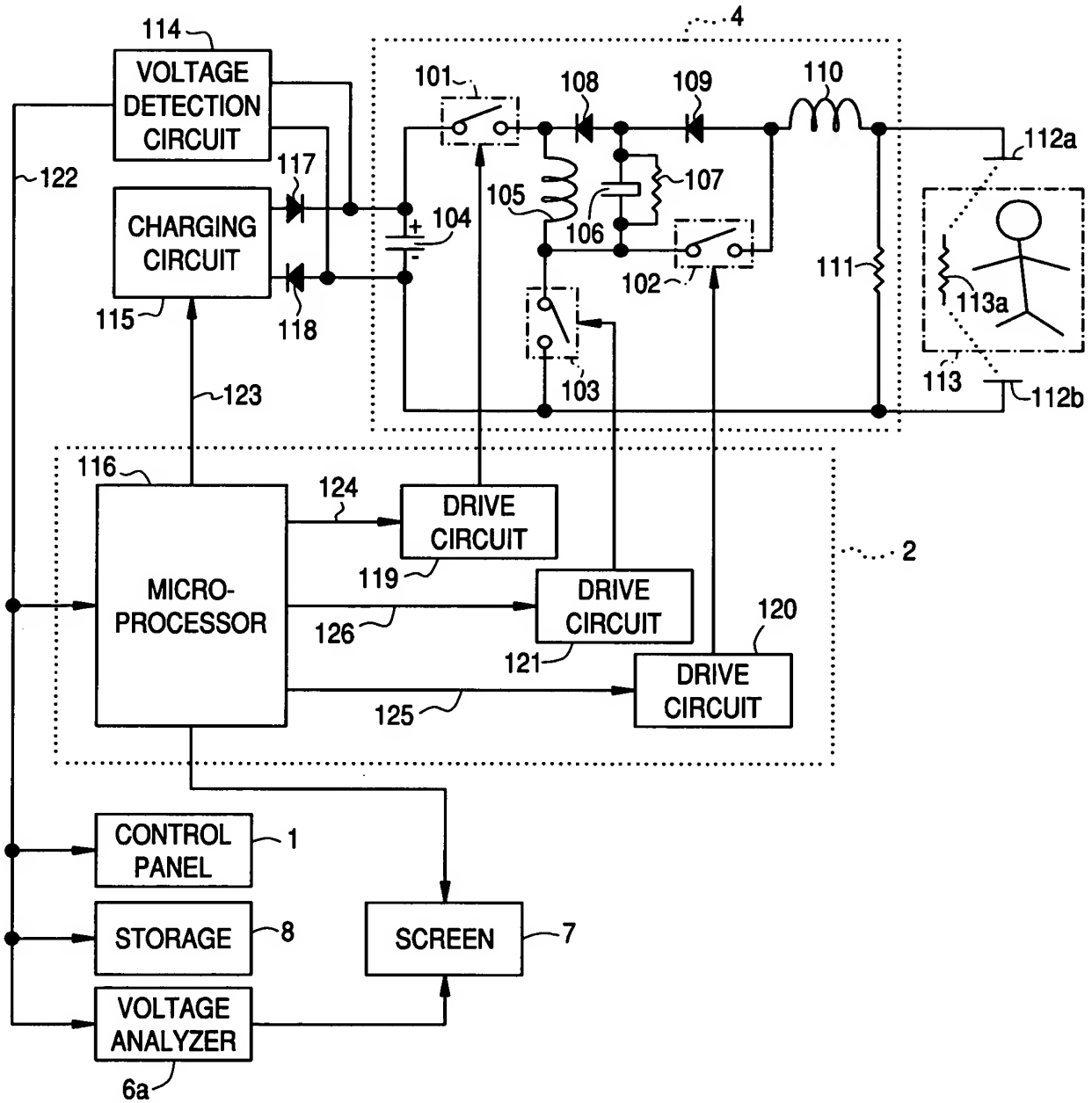




FIG. 5



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FIG. 6

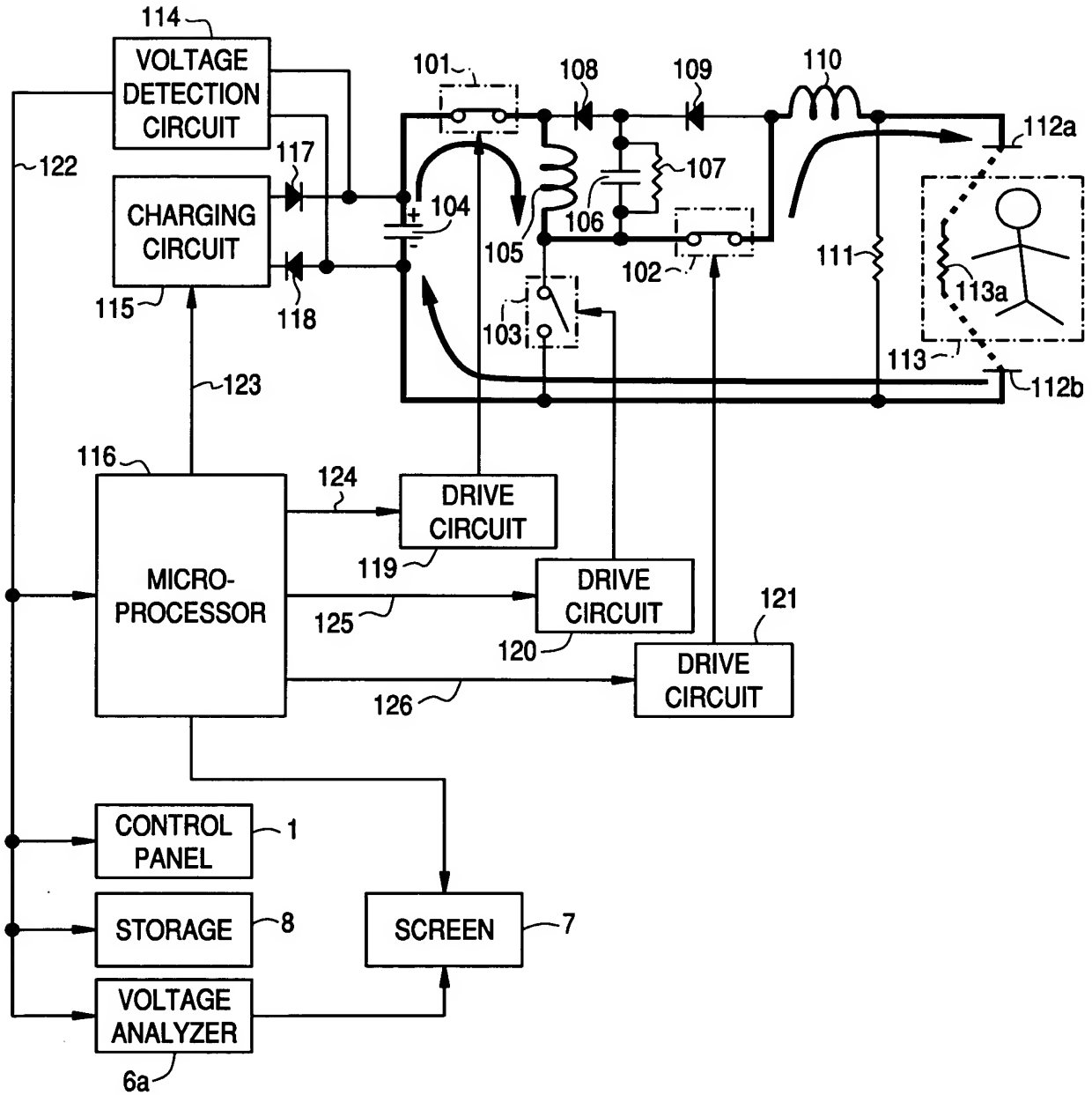


FIG. 7

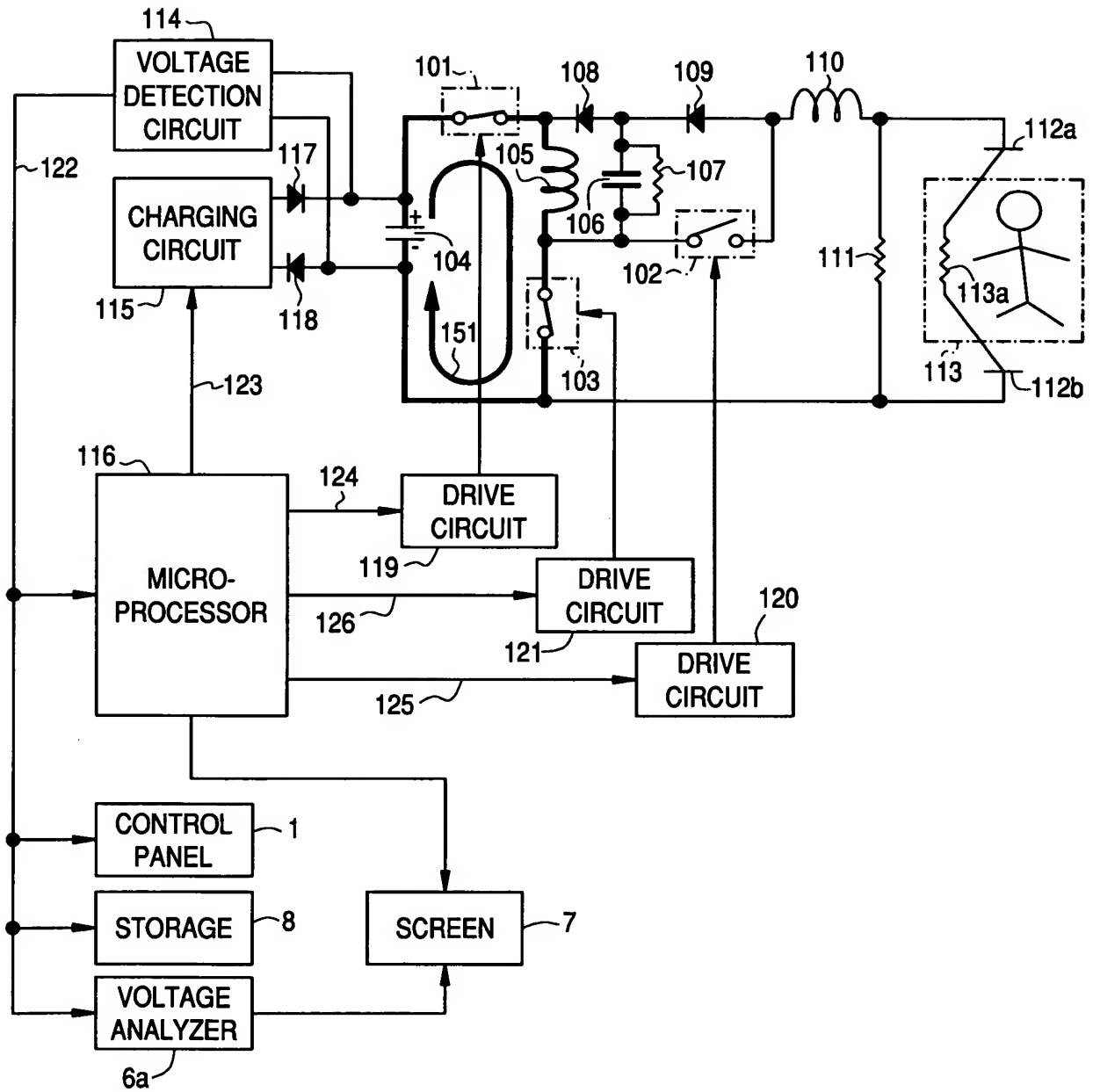
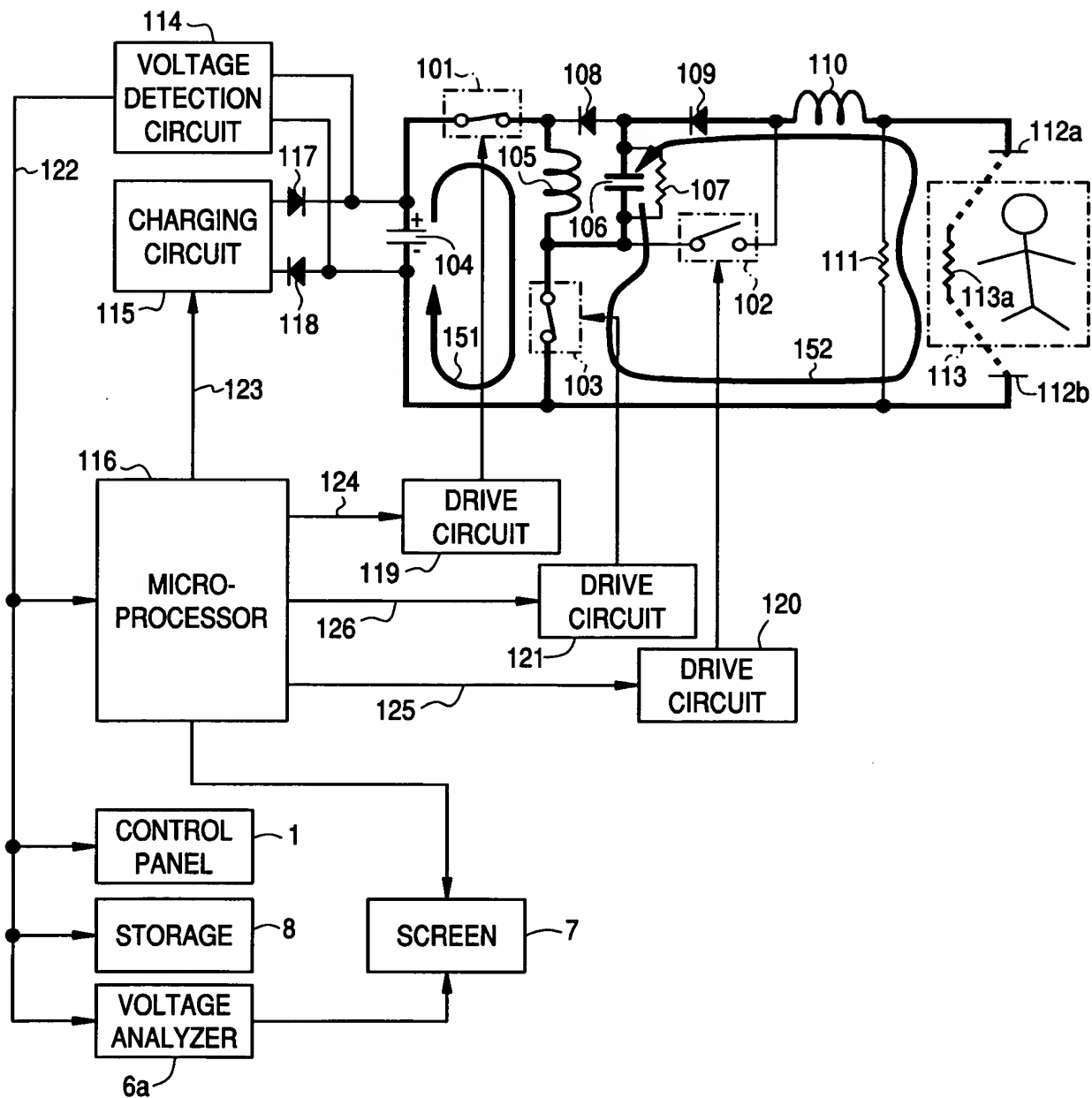


FIG. 8



The diagram shows a system for measuring the impedance of a load (113). A voltage source (104) is connected to a network of components including a switch (101), a transformer (105), a diode (108), a capacitor (106), a resistor (107), and another switch (102). The output of this network is connected to an inductor (110) and a resistor (111), which are in series with the load (113). The load (113) is represented by a stick figure (113a) and a resistor (113b). The system is controlled by a micro-processor (116) which is connected to a control panel (1), storage (8), and a voltage analyzer (6a). The micro-processor (116) sends control signals (123, 124, 119, 126, 125) to various components, including the voltage detection circuit (114), the charging circuit (115), and three drive circuits (120, 121, 122). The voltage detection circuit (114) is connected to the output of the network (101, 108, 109, 110, 111, 112a, 112b). The charging circuit (115) is connected to the voltage source (104). The three drive circuits (120, 121, 122) are connected to the switches (101, 102, 103) in the network.